

[illegible]

MATCH WITH FIG. 1B

MATCH WITH FIG. 1A

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~~307~~ +-----+-----+-----+-----+-----+-----+-----+-----+-----+
360

GGTTGGAGTTGAGTTCCTGTCCTTCTCTGATATTTTAAACGACGTCGTCGTATATATATGTC

CONFIDENTIAL

AGATCTTGAAAAGTATTGATAATGAGTGGAGAAAGACTCAATGCCACGGGAGGTGT

361+-----+ 420

TCTAGAACTTTTCATAACTATTACTCACCTCTTTCTGAGTTACGTACGGTGCCCTCCACA

C I L K S I D N E W R K T O C M P R E V C -

GTATAGATGTGGGGAAGGAGGTTGGAGTCCGCGACAAACACCTTCTTTAAACCTCCATGTG

[illegible]

CATATCTACACCCCTTCCTCAACCTCAGCGCTGTTTGTGGAAGAAATTGGAGGTACAC

C I D V G K E F G V A T N T F F K P P C V -

TGTCCGTCACAGATGTGGGGGTGCTGCAATAGTGAGGGGCTGCAGTGCATGAACACCA

[illegible]

ACAGGCAGATGTCTACACCCCAACGACGTTATCACTCCCCGACGTCACGTA^{CT}TGTGGT

C
 S
 S
 V
 Y
 R
 C
 G
 G
 C
 C
 N
 S
 E
 G
 L
 Q
 C
 M
 N
 T
 S

GCACGAGCTACCTCAGCAAGACGTTATTTGAAATTACAGTGCCCTCTCTCAAGGCCCA

541-----+-----+-----+-----+600

CGTGCTCGATGGAGTCGTTCTGCAATAAAGCTTTAATGTCAACGAGAGAGAGTTCGGGGT

C T S Y L S K T L F E I T V P L S Q G P K -

AACCAGTAACAATCAGTTTGGCCAAATCACACACTTCCTGCCGATGCATGTCTAAACTGGATG

[illegible]

TTGGTCATTGTTAGTCAAAACGGTTAGTGTGAAGGACGGCTACGTACAGATTTGACCTAC

C P V T I S F A N H T S C R C M S K L D V -

MATCH WITH FIG. 1C

FIG. 1C

MATCH WITH FIG. 1B

661	TTTACAGACAAGTTCATTCCATTATTAGACGTTCCCTGCCAGCAACACTACACAGTGTC	720
	AAATGCTCTGTTCAAGTAAGTAATAATCTGCAAGGACGGTCGTTGTGATGGTGTACACAG	
C	Y R Q V H S I I R R S L P A T L P Q C Q	
721	AGGCAGCAACAAGACCTGCCCCACCAATTACATGTGGAATAATCACAATCTGCAGATGCC	780
	TCCGTCGCTTGTCTGGACGGGTGTTAATGTACACCTTATTAGTGTAGACGCTCTACGG	
C	A A N K T C P T N Y M W N N H I C R C L	
781	TGGCTCAGGAAGATTTATGTTTTCCTCGGATGCTGGAGATGACTCAACAGATGGATTCC	840
	ACCGAGTCCTTCTAAATAACAATAAGGAGCCTACGACCTCTACTGAGTTGTCTACCTAAGG	
C	A Q E D F M F S S D A G D S T D G F H	
841	ATGACATCTGTGGACCAACAAGGAGCTGGATGAAGAGACCTGTCTCAGTGTCTGCAGAG	900
	TACTGTAGACACCTGGTTGTTCTCCTCGACCTACTTCTCTGGACAGTCAACACAGCGTCTC	
C	D I C G P N K E L D E E T C Q C V C R A	
901	CGGGCTTCGGCCTGCCAGCTGTGGACCCACAAGAACTAGACAGAACTCATGCCAGT	960
	GCCCCGAAGCCGGGTCGACACCTGGGGTGTCTTGATCTGTCTTGAGTACGGTCA	
C	G L R P A S C G P H K E L D R N S C Q C	
961	GTGTCTGTAAAAACAACCTCTTCCCCAGCCAATGTGGGGCCAACCGAGAAATTGATGAAA	1020
	CACAGACATTTTGTGTTGAGAAGGGGTCGGTTACACCCCGGTGGCTCTTAAACTACTTT	

MATCH WITH FIG. 1D

MATCH WITH FIG. 1C.

~~C V C K K N K L F P S Q C G A N R R E F F D E N -~~

1021 ACACATGCCAGTGTGTATGTAAAGAACCTGCCCCAGAAATCAACCCCTAAATCCTGGAA 1080

C
 T C Q C V C K R T C P R N Q P L N P G K -
 TGTGTACGGTCACATACATTTCTTGGACGGGCTTTAGTTGGGATTAGGACCTT

1081 AATGTGCTGTGAATGTACAGAAAGTCCACAGAAATGCTTGTAAAGGAAAGAGTTCC 1140

C A C E C T E S P Q K C L L K G K K F H -
 TTACACGGACACTTACATGTCCTTTCAGGTGCTTTACGACAAATTTCCCTTCTTCAAGG

ACCACCAACATGCAGCTGTTACAGACGGCCATGTACGAACGCCAGAAGGCTTGTGAGC
-----+-----+-----+-----+-----+-----+-----+
1141 1200

C H Q T C S C Y R R P C T N R Q K A C E P -
 TGGTGGTTGTACGTCGACATGTCTGCCGGTACATGCTTGGCGGTCTTCCGAACACTCG

1201 CAGGATTTTCATATAGTGAAAGTGTGTGTCGTTGTGTCCCTTCATATATGGCAAGACCAC
-----+-----+-----+-----+-----+-----+ 1260

GTCCCTAAAAGTATATCACTTCTTCACACAGCAACACAGGGAAGTATACCGTTTCTGGTG
C G F S Y S E E V C R C V P S Y W Q R P Q -

AAATGAGCTAAGATTGTACTGTTTCCAGTTCATCGATTTCATATTATGGAACAACCTGTGT

MATCH WITH FIG. 1E

1320

1261

TTTACTCGATTCTTAACATGACAAAGGTCAAGTAGCTAAAGATAATACCTTTTGACACA

*
S
Σ

U

TGCCACAGTAGAACTGTCTGTGAACAGAGAGACCCCTTGTGGGTCCATGCTAACAAAGACA

1380

1321

ACGGTGTCATCTCTGCACAGACACTTGTCTCTCTGGGAACACCCAGGTACGATGTGTTCTGT

AAAGTCCTGTCCTTCCCTGAACCACTGTGGATAACTTACAGAAATGGACTGGAGCTCATCTG

1440

1381

TTTCAGACAGAAAGGACTTGGTACACCTATTGAAATGTCTTTACCTGACCTCGAGTAGAC

CAAAAGGCCCTCTTGTAAGAGCTGGTCTTCTGCCAATGACCAACAGCCAGATTTCCTC

1500

1441

GTTTTCCGGAGAACATTTCTGACCAAAAGACGGTTACTGGTTTGTCTGCTTAATAAGGAG

TTGTGATTTCTTTTAAAGAAATGACTATATTAATTTATTTCCACTAATAATATTTGTTCTGCG

1560

1501

AACACTAAAGAAATTTTCTTACTGATATATTAATAAAGGTGATTTTATACAAGACG

ATTTCATTTTATAGCAACAACAATTGGTAAAACTCACGTGTCATCAATATTTTATATCAT

1620

1561

TAAGTAAAAATATCGTTGTTTAAACCATTTTGAGTGACACTAGTTATATAAATATAGTA

GCAGAAATATGTTTAAATAAATAATGAAAAATGTGATTTTATTAATAAAAAAAAATAAA.

1674

1621

CGTTTATACAAATTATTTTACCTTTAACAATAAATAATTTTATTTT

```

1  CGAGGCCACGCTTATGCAAGCAAGATCTGGAGGACAGTTACGGTCTGTGTCCAGTGT
-----+-----+-----+-----+-----+-----+-----+
71 AGATGAACCTCATGACTGTACTCTACCCAGAAATATTGGAATAATGTACAAGTGTCAAGCTAAG
-----+-----+-----+-----+-----+-----+-----+
      M T V L Y P E Y W K M Y K C Q L R
-----+-----+-----+-----+-----+-----+-----+
121 GAAAGGAGGCTGGCAACAATAACAGAGAACAGGCCAACCTCAACTCAAGGACAGAGAGAC
-----+-----+-----+-----+-----+-----+-----+
      K G G W Q H N R E Q A N L N S R T E E T
-----+-----+-----+-----+-----+-----+-----+
181 TATAAAATTGCTGCAGCACATTATAATACAGAGATCTTGAAAAGTATTGATAATGAGTC
-----+-----+-----+-----+-----+-----+-----+
      I K F A A A H Y N T E I L K S I D N E W
-----+-----+-----+-----+-----+-----+-----+
241 GAGAAAGACTCAATGCATGCCACGGAGGTGTGTATAGATGTGGGAAGGAGTTTGAGT
-----+-----+-----+-----+-----+-----+-----+
      R K T Q C M P R E V C I D V G K E F G V
-----+-----+-----+-----+-----+-----+-----+
301 CCGGACAAACACCTTCTTTAAACCTCCATGTGTCTCCGTCTACAGATGTGGGGTGTGCTG
-----+-----+-----+-----+-----+-----+-----+
      A T N T F F K P P C V S V Y R C G C C

```

FIG. 2A

361 CAATAGTGGGCTGCAGTGCATGAACACCAGCAGCTACCTCAGCAAGACGTTATT
 N S E G L Q C M N T S T S Y L S K T L F
 421 TGAAATTACAGTGCCTCTCTCTCAAGCCCCAACCCAGTAACAATCAGTTTGGCCAATCA
 E I T V P L S Q G P K P V T I S F A N H
 481 CACTTCCTGCCGATGCATGTCTAACTGGATGTTTACAGACAAGTTCATTCATTATTAG
 T S C R C M S K L D V Y R Q V H S I I R
 541 ACGTCCCCTGCCAGCAACACTACCACAGTGTCTCAGGCAGCGAACAGACCTGCCCCACCAA
 R S L P A T L P Q C Q A A N K T C P T N
 601 TTACATGTGGAATAATCACAATCTGCAGATGCCCTGGCTCAGGAAGATTTTATGTTTTCCTC
 Y M W N N H I C R C L A Q E D F M F S S
 661 GGATGCTGGAGATGACTCAACAGATGGATTCCATGACATCTGTGGACCAACAAGGAGCT
 D A G D D S T D G F H D I C G P N K E L

FIG.2B

721 GGATGAAGAGACCTGTCACTGTCTGCAGAGCGGGGCTTCGGCCTGCCAGCTGTGGAC
D E T C Q C V C R A G L R P A S C G P

781 CCACAAAGAACTAGACAGAACTCATGCCAGTGTCTGTCTGTAAACAACTCTTCCCCAG
H K E L D R N S C Q C V C K N K L F P S

841 CCAATGTGGGCCAACCGAGAAATTGATGAACACATGCCAGTGTGTATGTAAAGAAGAAC
Q C G A N R E F D E N T C Q C V C K R T

901 CTGCCCCAGAAATCAACCCCTAATCTCGGAAATGTGCCCTGTGAATGTACAGAAAGTCC
C P R N Q P L N P G K C A C E C T E S P

961 ACAGAAATGCTTGTAAAGGAAGAAGTTCACCACCAACATGCAGCTGTACAGACG
Q K C L L K G K K F H H Q T C S C Y R R

1021 GCCATGTACGAACCGCAGAGGCTGTGAGCCAGGATTTTCATATAGTGAAGAAGTGTG
P C T N R Q K A C E P G F S Y S E E V C

FIG. 2C

1081 TCGTTGTGTCCTTCATATTGGCAAAGACCACAAATGAGCTAAGATTGTAAGTTGTTTCCA
R C V P S Y W Q R P Q M S
1141 GTTCATCGATTCTTCTATTATGGAAACTGTGTGTCACAGTAGAACTGTCTGTGAACAGA
1201 GAGACCCCTTGTGGTCCATGCTAACAAAGACAAAGTCTGTCTTCCCTGAACCATGTGGA
1261 TAACTTTACAGAAATGGACTGGAGCTCATCTGCAAAAGGCCCTCTTGTAAGACTGGTTTT
1321 CTGCCAATGACCACAAACAGCCCAAGATTTTCCCTCTTGTTGATTTCTTTAAAGAATGACTATA
1381 TAAATTTATTCCCACTAAATAATTGTTTCTGCAATTCATTTTATAGCAACAATAATGGT
1441 AAAACTCACTGTGATCAATAATTTTATATCATGCAAAATATGTTTAAATAAATGAAAA
1501 TTGTATTATAAAAAAATAAAAAA

50

1

pdgfa .MRTLACLLL LGCGYLAHVL AEEAEIPREV IERLARSQIH SIRDLORLLE
pdgfb MNRCWA.LFL SLCCYLRLVS AEGDPIPEEL YEMLSDEHSIR SFDDLQRLH
VegfMNFLL SWVHWSLALL LY.....
Vegf2MTV LYPEYWKMYK CQ.....

100

51

pdgfa IDSVGSEDSL DTSILRAHGVH ATKHVPEKRP LPTRRKRSI.EEAVP
pdgfb GDP.GEEDGA ELDLNMTRSH SGGELES... .LARGRRSLG SLTIAEPAMI
Vegf APMAE..... GGGQ NHHEVVKFMD .VYQR.....
Vegf2 REQANLNSRT EETIKFAAAH YNTEILKSID NEWRK.....

150

101

pdgfa AVCKTRTVIY EZPRSQVDPT SANFLIWPPC VEVKRCCTGCC NTSSVKCQPS
pdgfb AECKTRTEVF EISRRLLIDRT NANFLVWPPC VEVQRCSGCC NNRNVQCRPT
Vegf SYCHPTELV DIFQEYPDEI ..EYIFKPSV VPLMRCGGCC NDEGLECVPT
Vegf2 TQZMPREVCI DVGKEFGVAT ..NTFFKPPC VSVYRCGGCC NSEGLQCMNT

200

151

pdgfa RVHHRSVKVA KVEYVRKKPK LKEVQVRLEE HLECAC..... AT.....
pdgfb QVQLRPVQVR KIEIVRKKPI FKKATVTLED HLACKC..... ETVAARPVT
Vegf EESNITMQIM RIK.PH..QG QHIGEMSFLQ HNKCECRPKK DRARQEKKS
Vegf2 STSYLSKTLF EIT.VPLSQG PKPVTISFAN HTSCRCMSKL DVYRQVHSII

FIG. 3A

250

201

PdgfaTSLNPD YREEDTDVR.
 Pdgfb RSPGGSQEQR AKTPQTRVTI RTVVRVRPPK GKHKFKKHTH DKTALKETLG
 Vegf RGK.....GKGQKRKRK KSRYKSWSVY VGARCCCLMPW SLPGPHP
 Vegf2 RRSPLPATLPQ CQANKTCPT NYMWNHICR CLAQEDFMFS SDAGDDSTDG

300

251

Pdgfa
 Pdgfb A.....
 VegfCGP.....CSE RRKHLFVQDP QTCKCSCKNT
 Vegf2 FHDICGPNKE LDEETCQVC RAGLRPASC GPHKEL...DR NSCQCVCCKNK

350

301

Pdgfa
 Pdgfb
 Vegf ..DSRCKARQ LEINERTCRC DKPRR.....
 Vegf2 LFPSQCCGANR .EFDENTCQC VCKRTCPRNQ PLNPGKCACE CTESPOKCLL

398

351

Pdgfa
 Pdgfb
 Vegf
 Vegf2 KGKKFHHQTC SCYRRPCTNR QKACEPGFSY SEEVCRCVPS YWQRPQMS

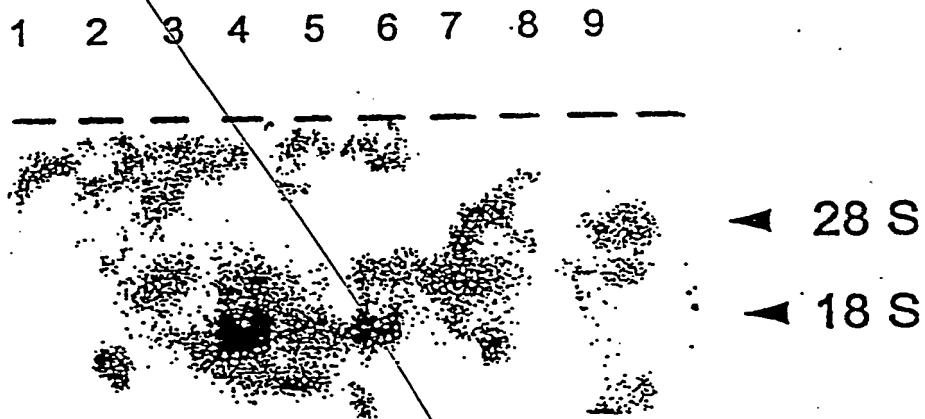
FIG. 3B

PERCENTAGE (%) OF AMINO ACID IDENTITIES BETWEEN EACH PAIR OF GENES IS SHOWN IN THE FOLLOWING TABLE				
	PDGF α	PDGF β	VEGF	VEGF2
PDGF α				
PDGF β	48.0			
VEGF	20.7	22.7		
VEGF2	23.5	22.4	30.0	

FIG. 4

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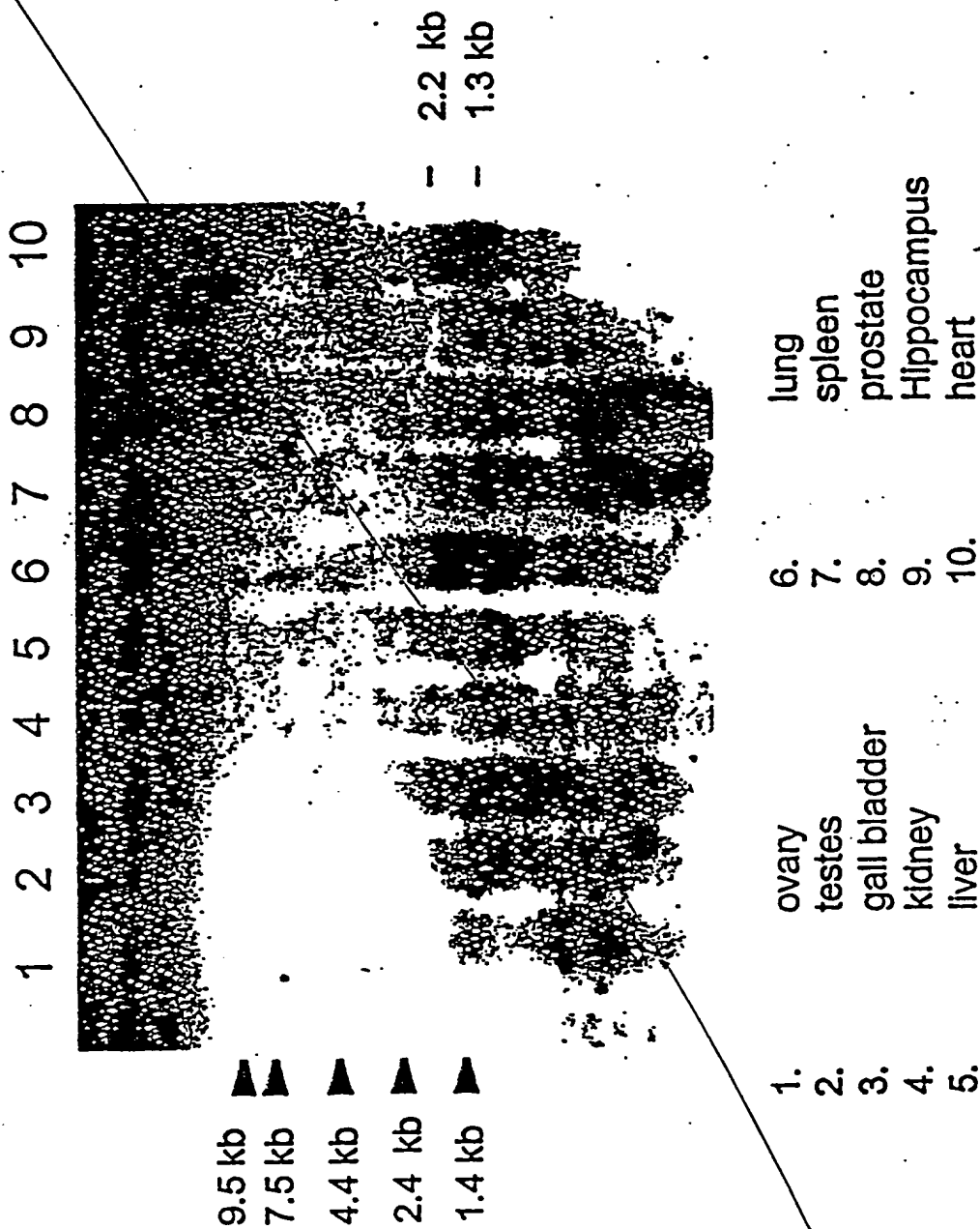
Expression of VEGF2 mRNA in Human Breast Tumor Cells



- 1. normal breast tissue
- 2. breast tumor tissue
- 3-9. breast tumor cell lines.

FIG. 5

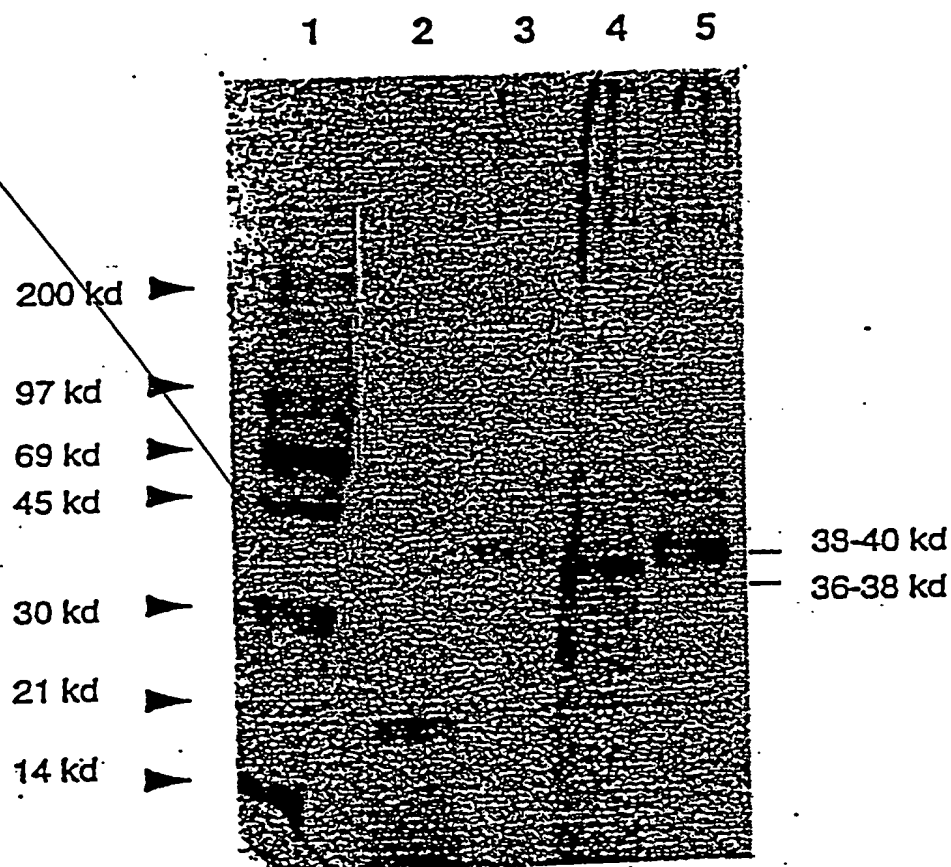
002020" 89465450



Expression of VEGF2 mRNA in human adult tissues.

FIG. 6

FIG. 7



- Lane 1: 14-C and rainbow M.W. marker
- Lane 2: FGF control
- Lane 3: VEGF2 (M13-reverse & forward primers)
- Lane 4: VEGF2 (M13-reverse & VEGF-F4 primers)
- Lane 5: VEGF2 (M13-reverse & VEGF-F5 primers)

004020" 99456450

non-reducing gel



FIG. 8A

reducing gel

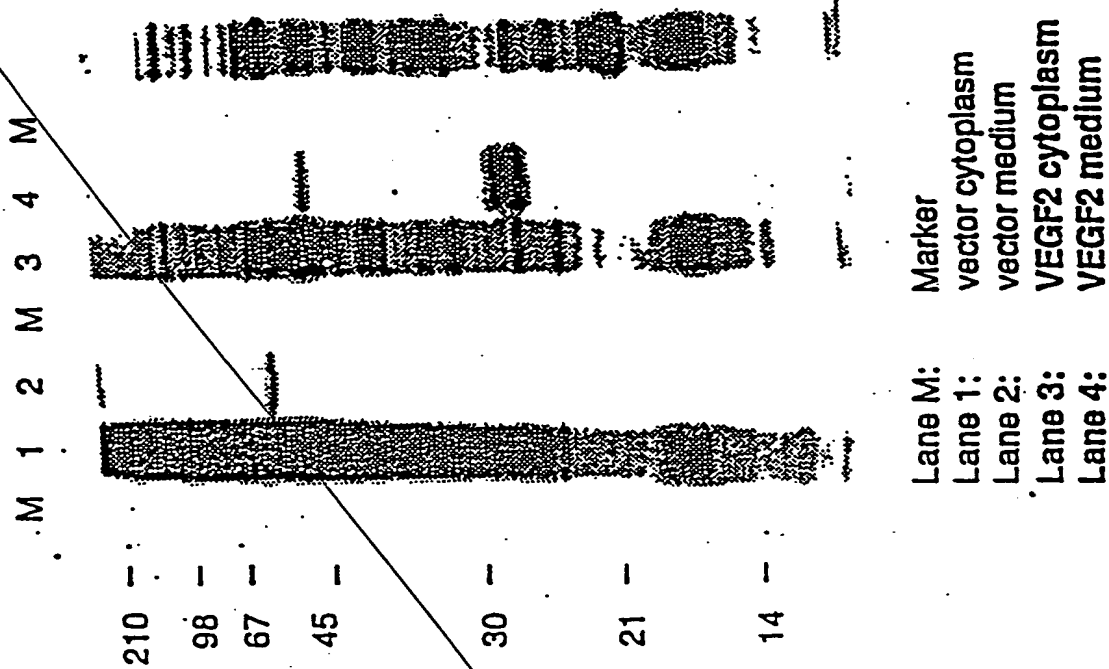


FIG. 8B

FIG. 9

98 kd -
68 kd -
43 kd -
29 kd -
18 kd -
14 kd -

1 2



Lane 1: Molecular weight marker
Lane 2: Precipitates containing VEGF2.

FIG. 10

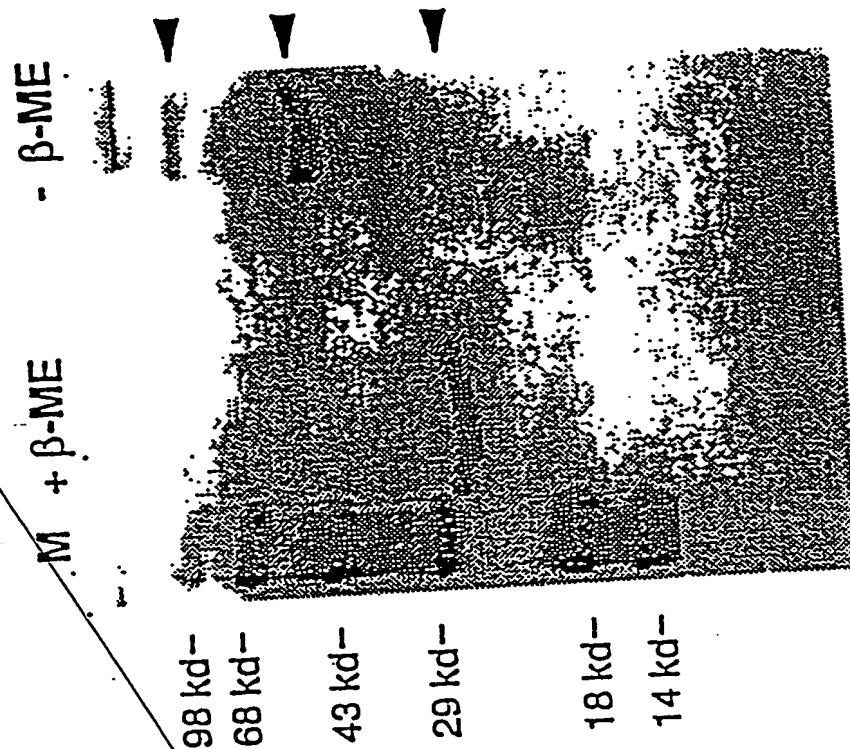
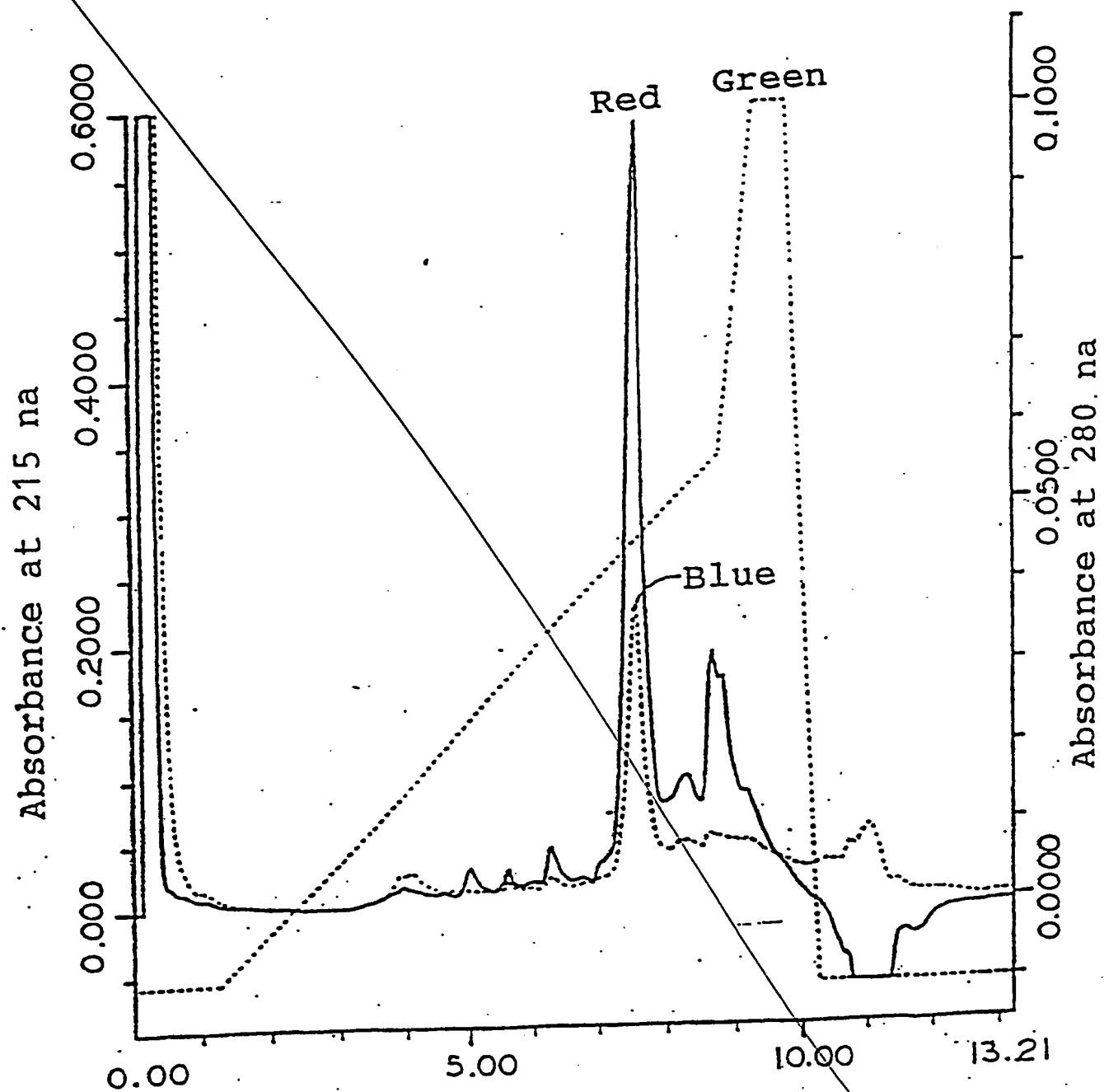


FIG. 11



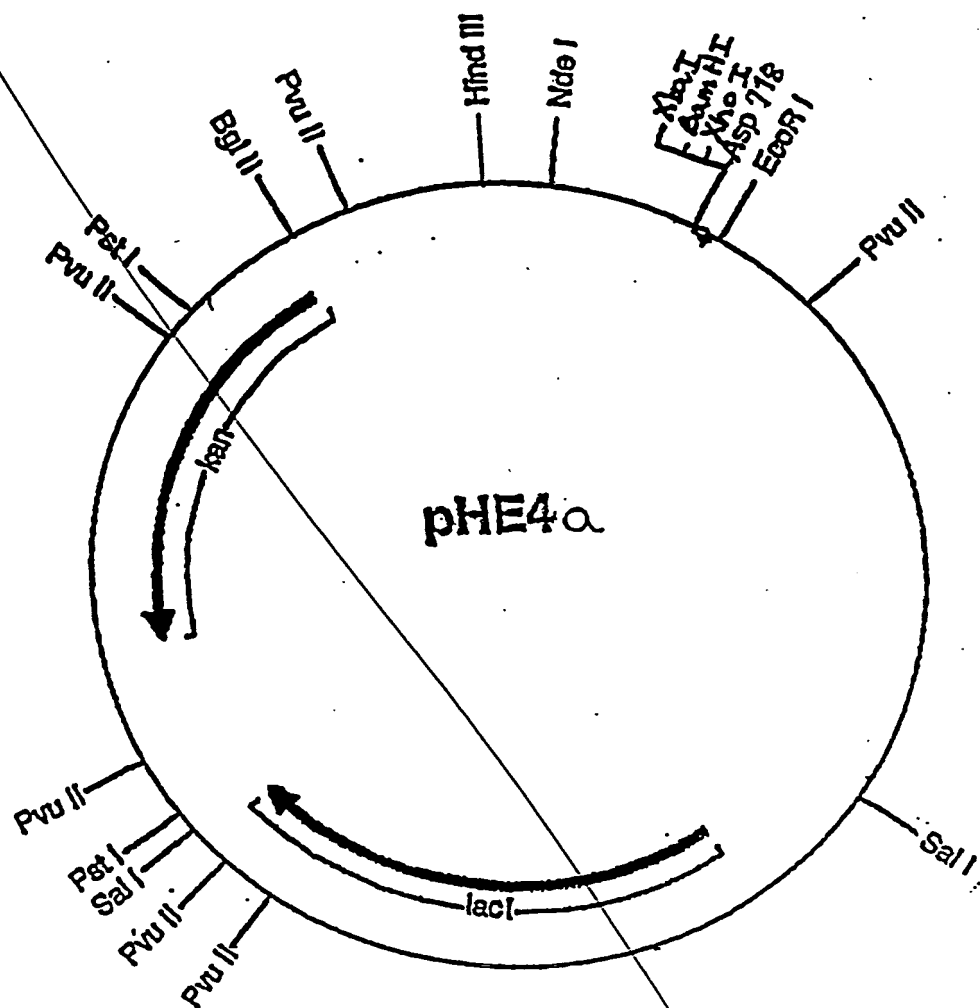


FIG. 12

ME

Operator 1

35

1 AAGCTTAAAAAAGCTGCAAAATAATTGACTGGTCAGCGCCTAACACAAAT

Operator 2

-10

Operator 2
-10
50 TAAGATGTACCA(ATTGATGCGGTAATGAA)TTACACATTAA

SD

94 AGAGGAGAAATA CATATG

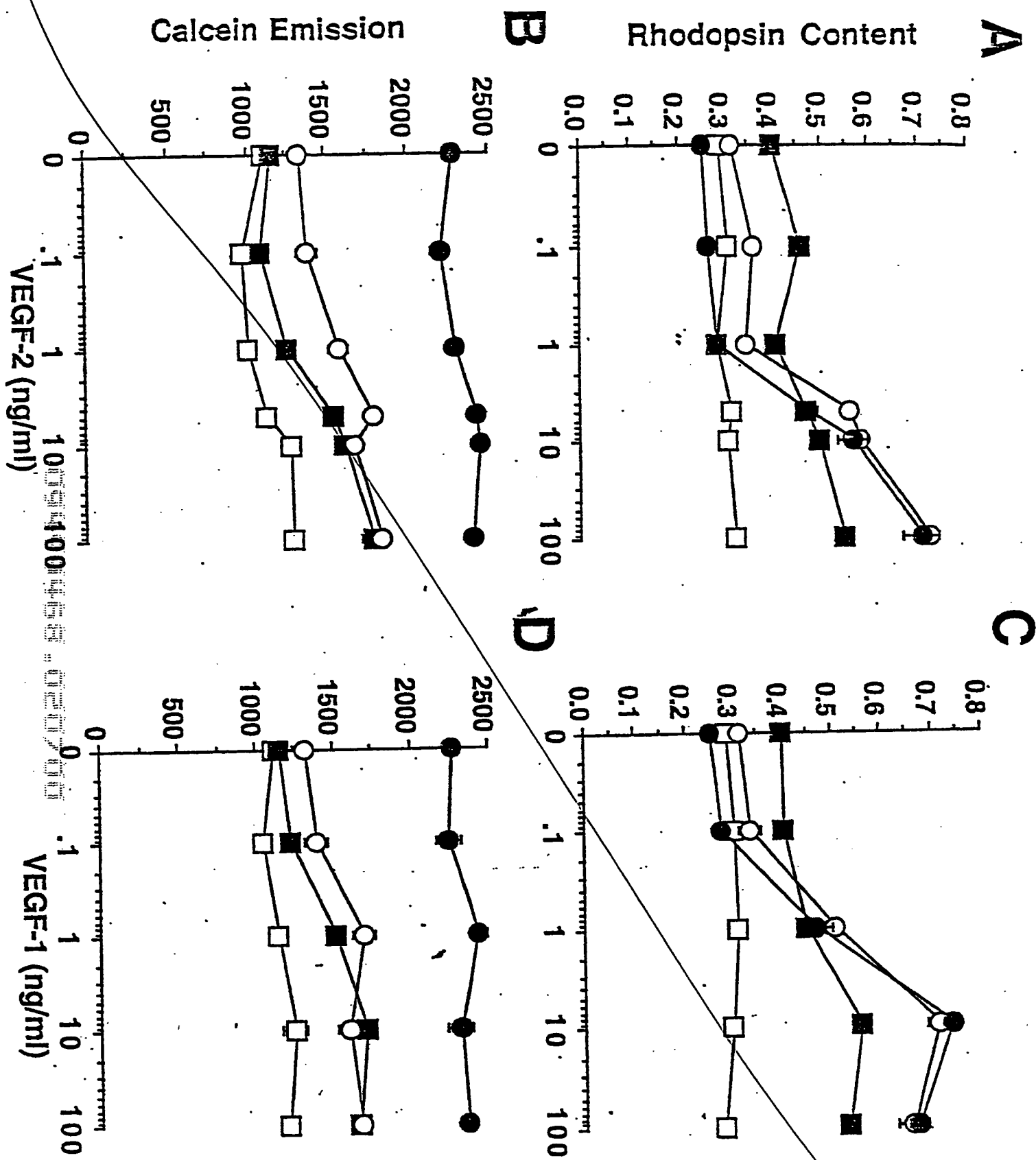


FIG. 14

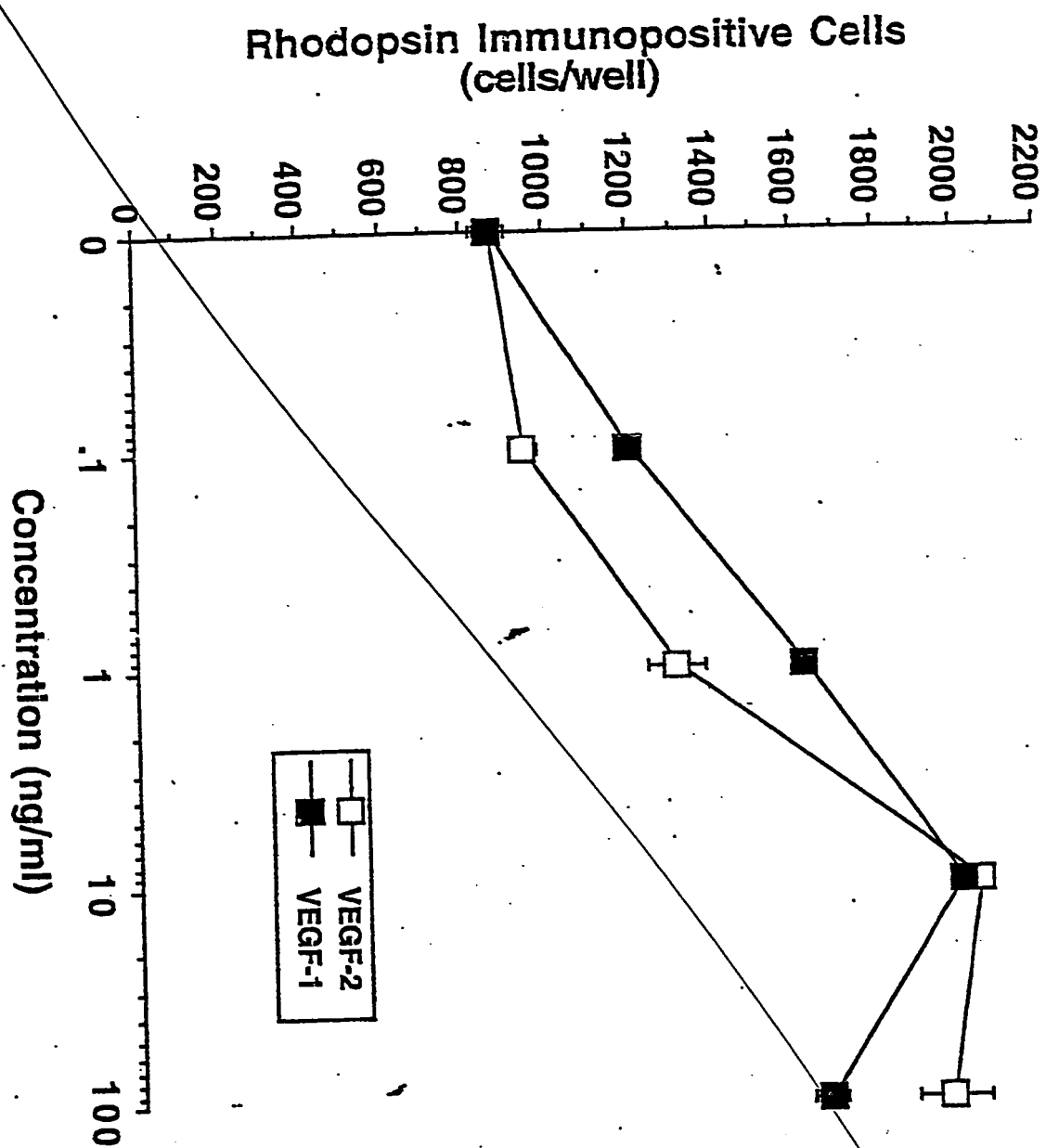
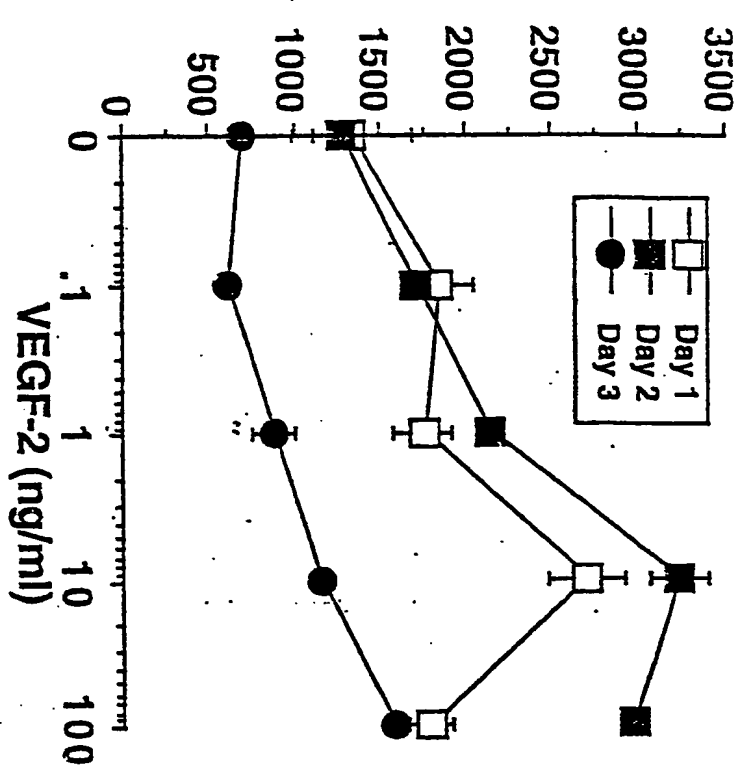
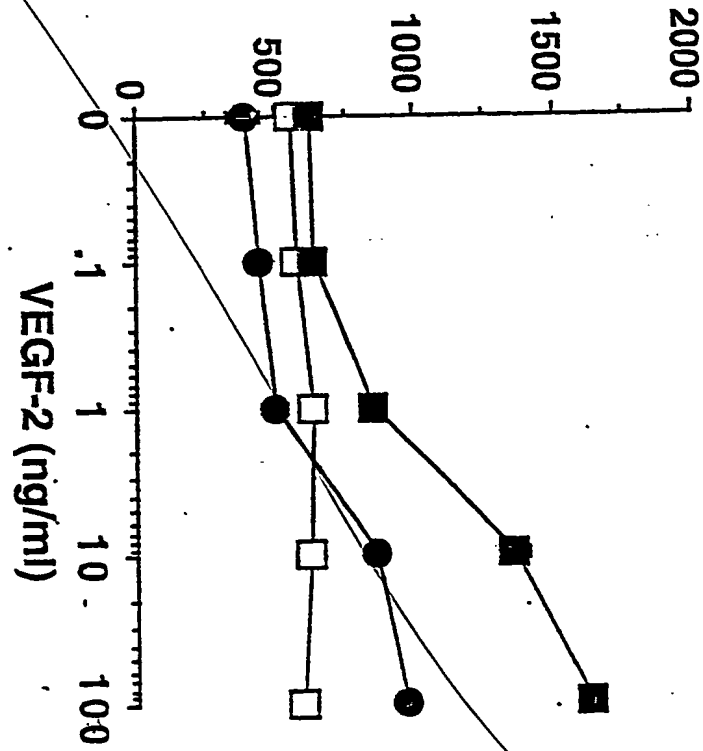


FIG. 15

A BrdU Immunopositive Cells (cells/well)



C Thymidine Incorporation (dpm/well)



B BrdU Immunopositive Cells (cells/well)

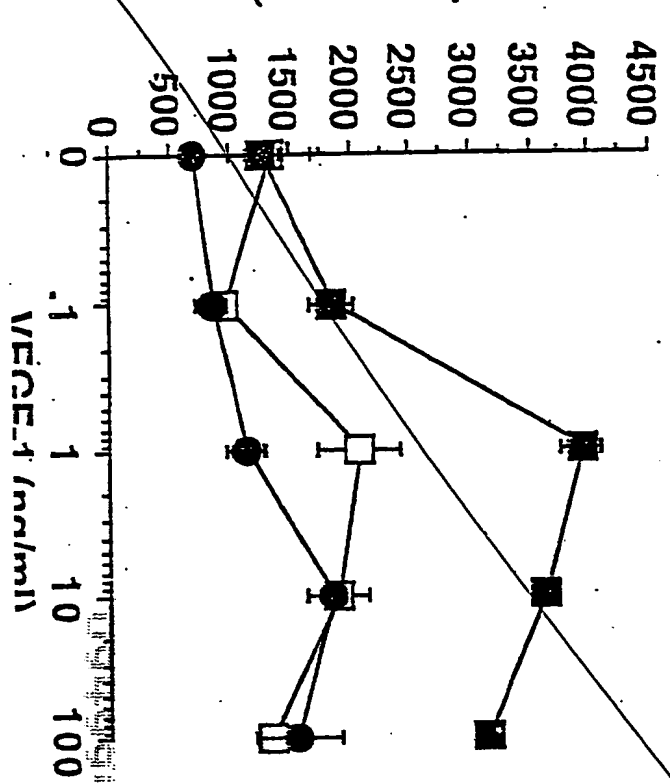
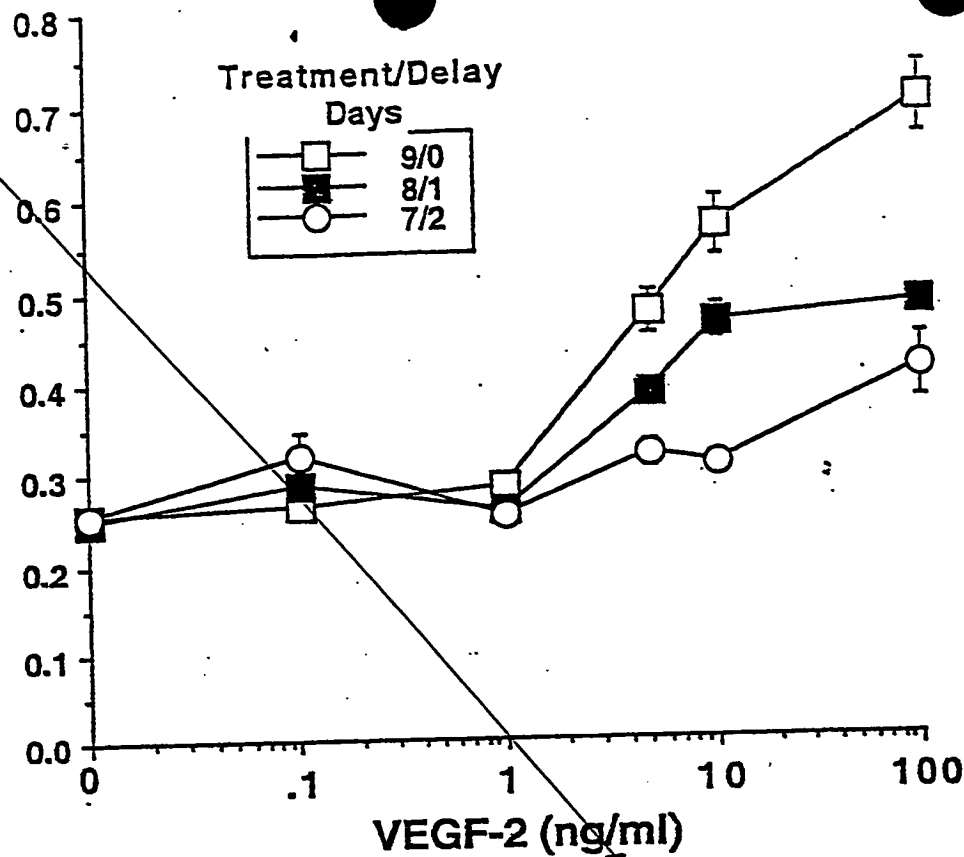


FIG. 16

A

Rhodopsin Content

**B**

Rhodopsin Content

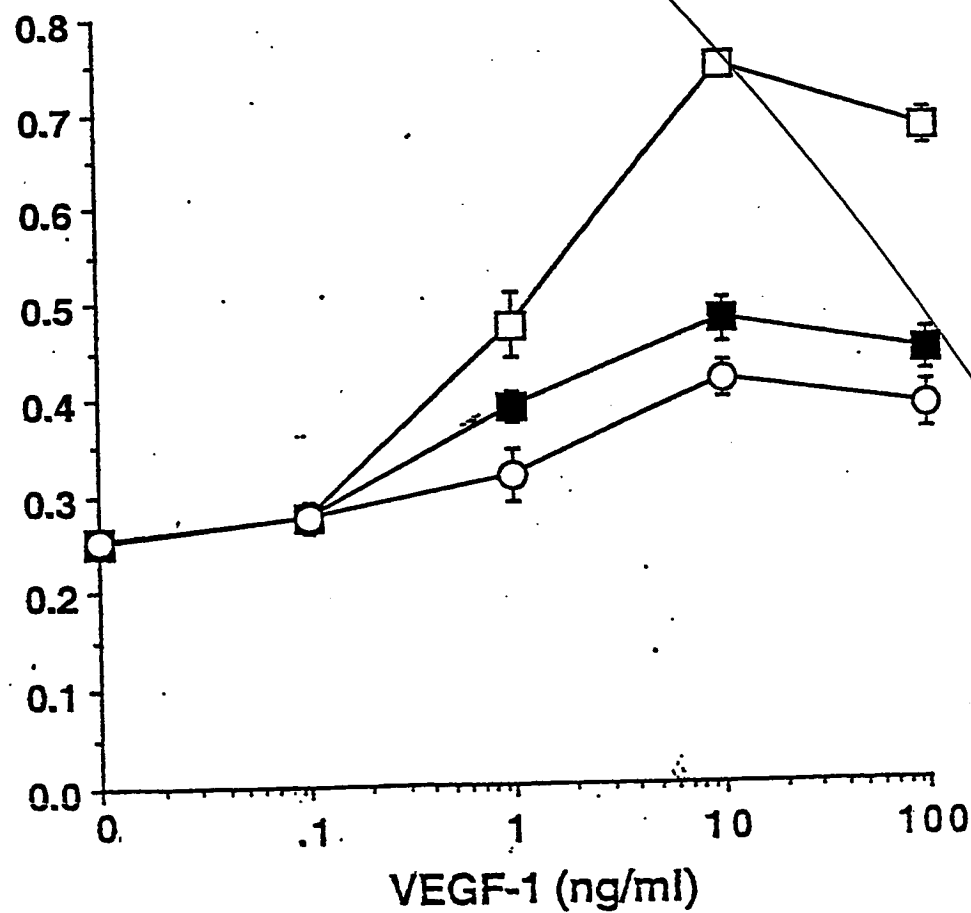


FIG. 17

FIG. 18

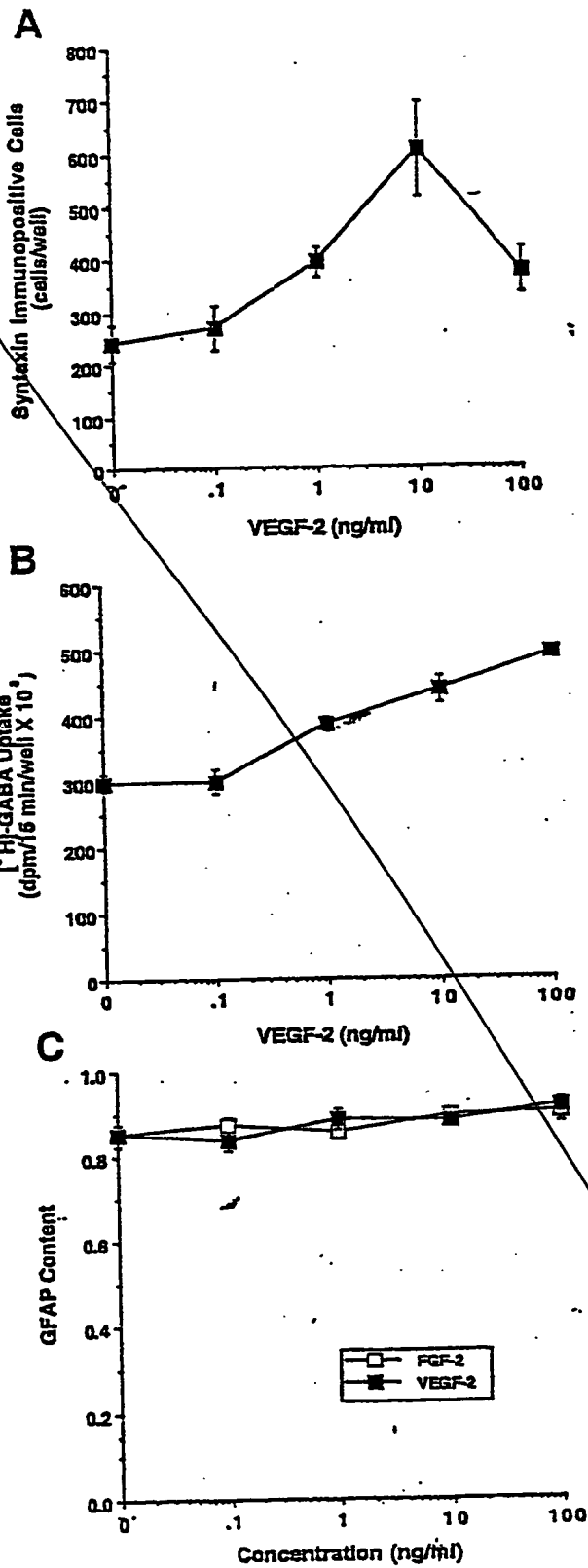


FIG. 19

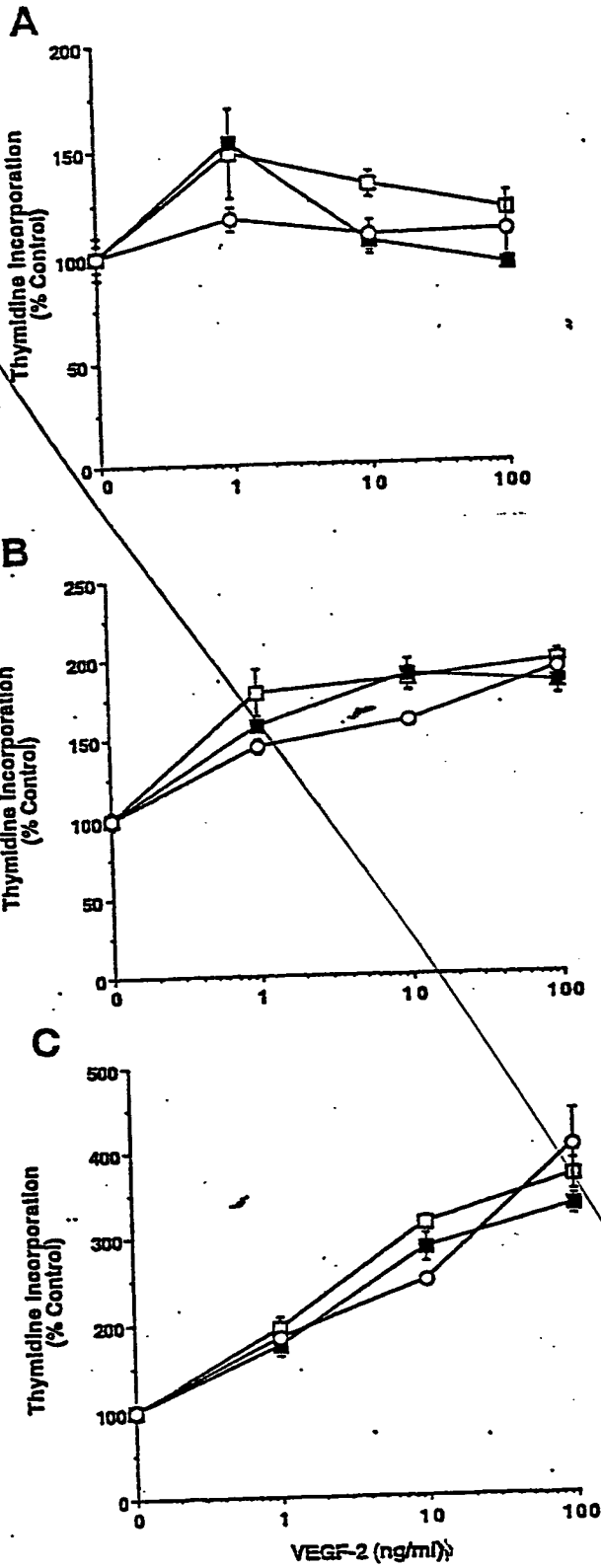


FIG. 20

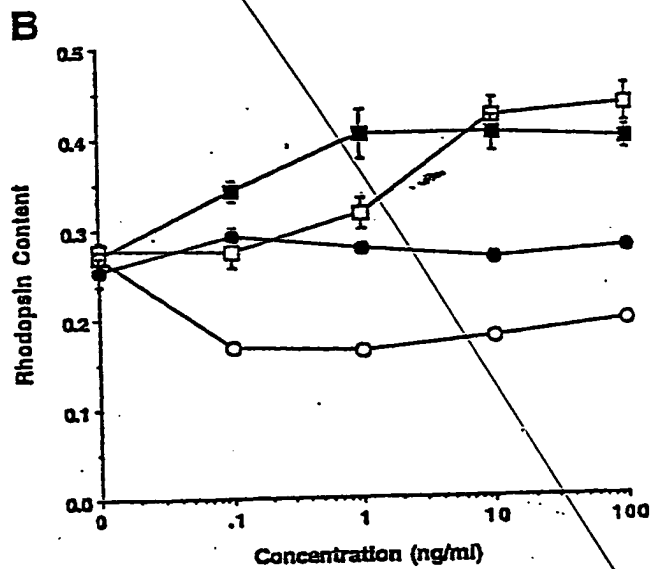
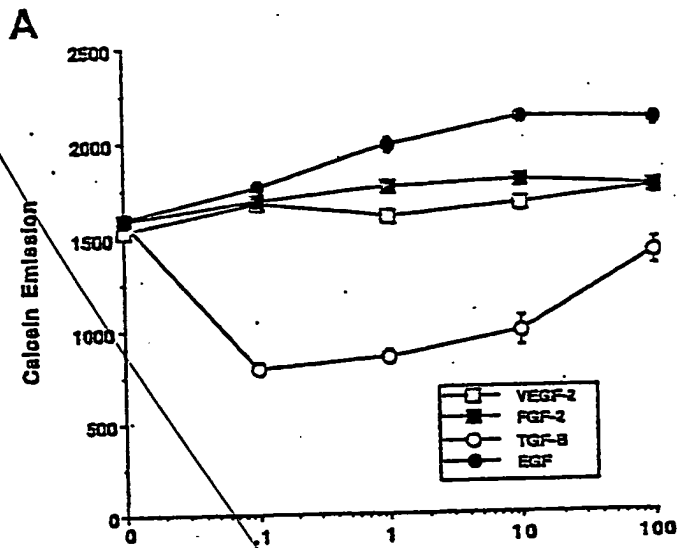


FIG. 21

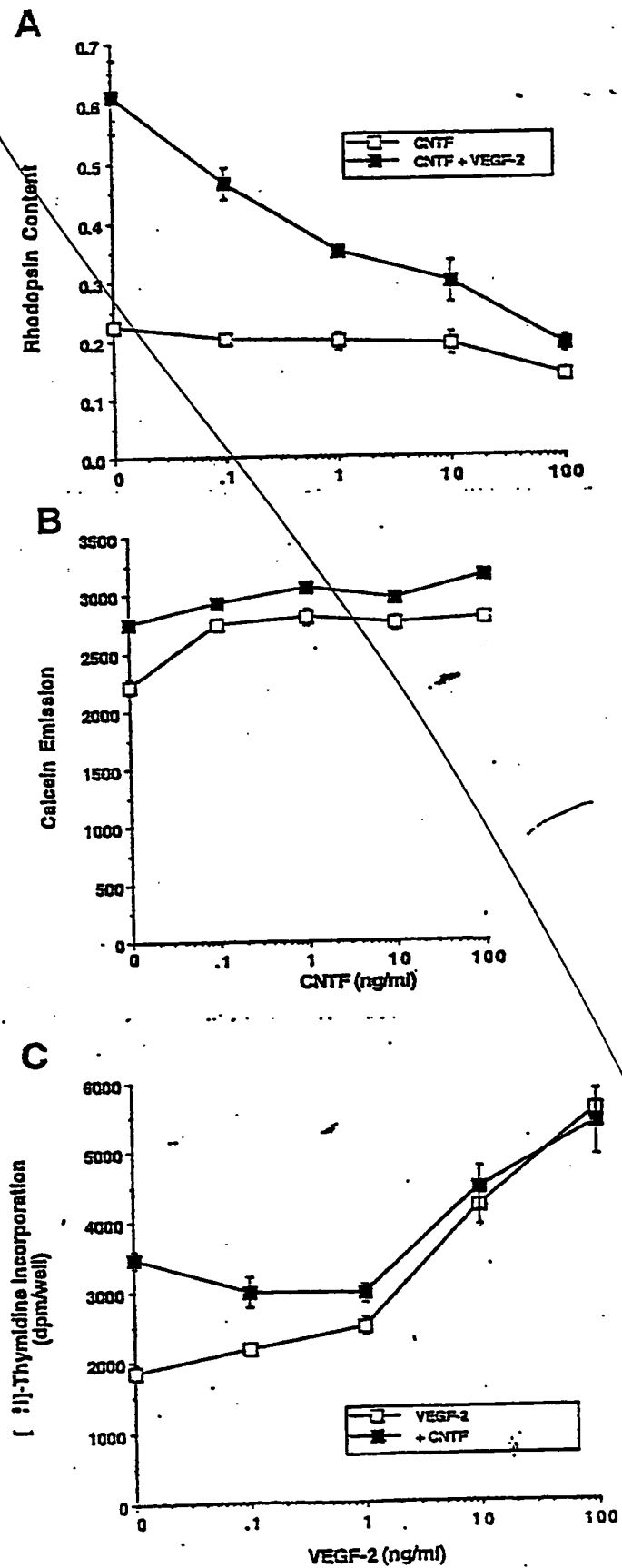
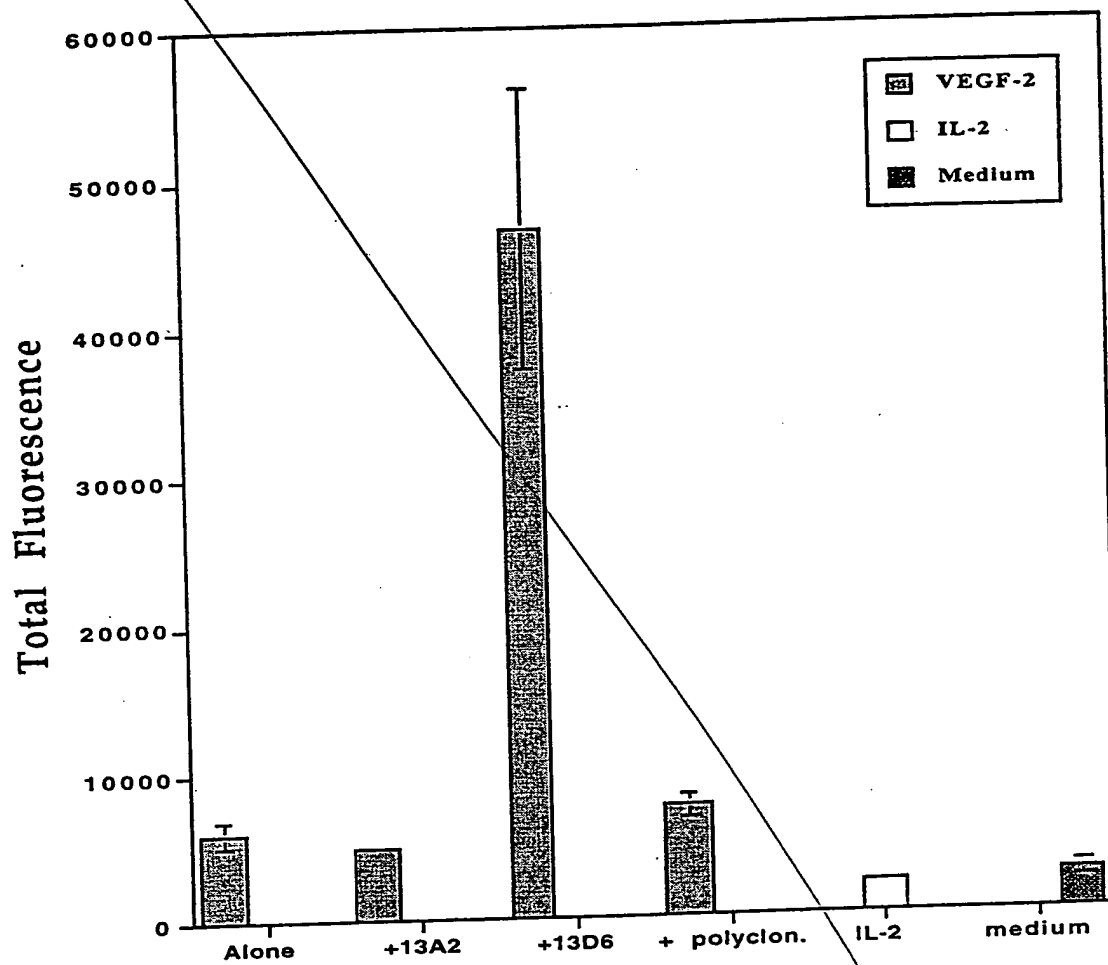
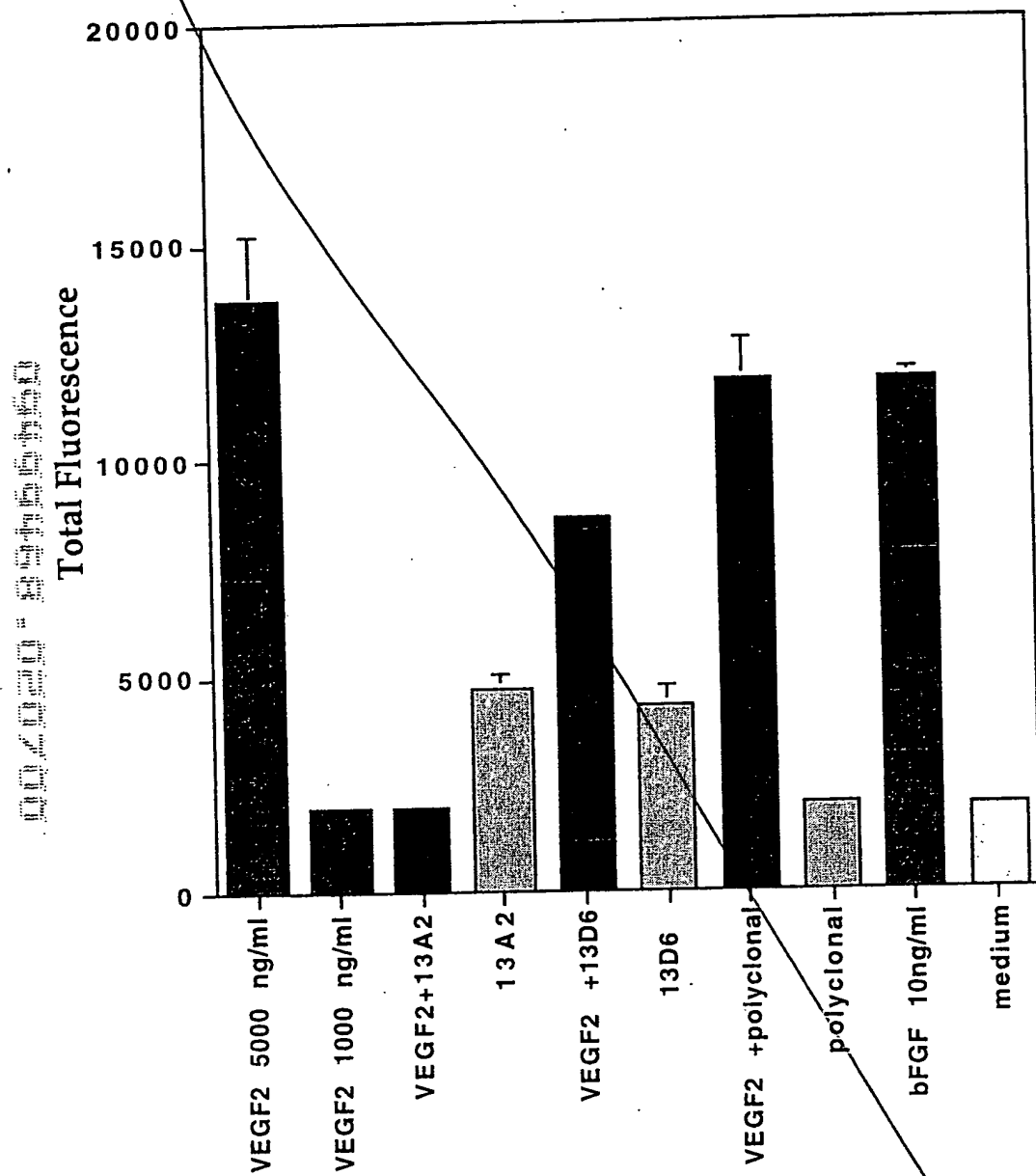


FIG. 22

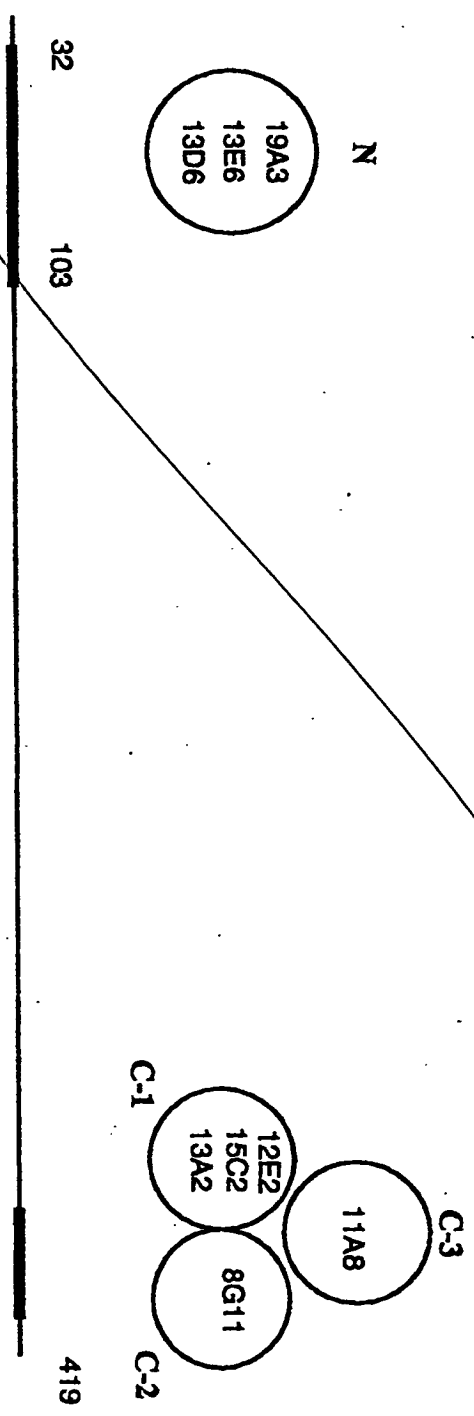




FILED 3

FIG. 24

Epitope map for murine anti VEGF-2 MAB



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Fig. 25

[illegible]